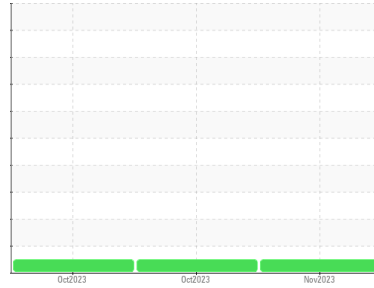




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**2105**

Component

**Diesel Engine**

Fluid

**DISEL ENGINE OIL SAE 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0868077</b>	WC0855885	WC0855882
Sample Date	Client Info		<b>02 Nov 2023</b>	10 Oct 2023	05 Oct 2023
Machine Age	mls	Client Info	<b>0</b>	0	0
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>2</b>	3	1
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	<1	1
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>0</b>	<1	1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	<b>4</b>	2	0
Barium	ppm	ASTM D5185m 10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 100	<b>62</b>	61	58
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 450	<b>981</b>	956	1004
Calcium	ppm	ASTM D5185m 3000	<b>1168</b>	1158	1085
Phosphorus	ppm	ASTM D5185m 1150	<b>1110</b>	1075	1056
Zinc	ppm	ASTM D5185m 1350	<b>1387</b>	1340	1337
Sulfur	ppm	ASTM D5185m 4250	<b>3202</b>	3158	3229

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>2</b>	2	2
Sodium	ppm	ASTM D5185m >158	<b>1</b>	4	4
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	<1

## INFRA-RED

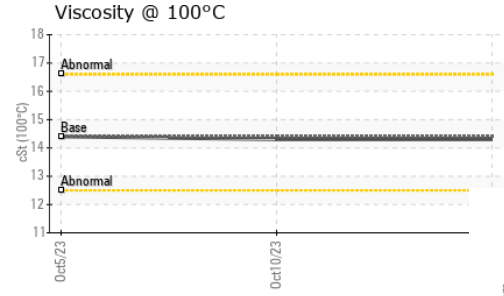
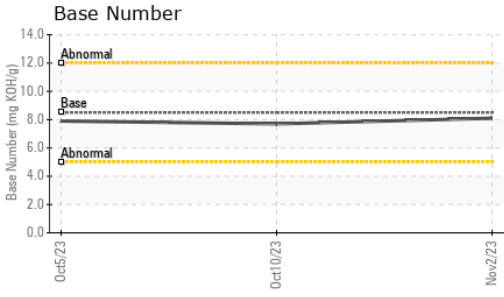
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.2</b>	8.2	7.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.6</b>	19.7	19.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.3</b>	17.6	16.9
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	<b>8.1</b>	7.7	7.9



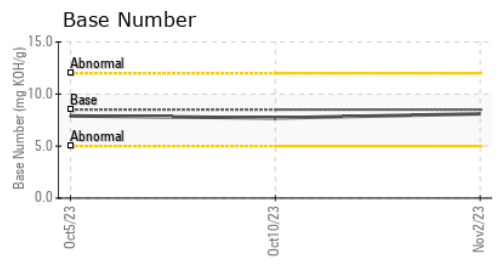
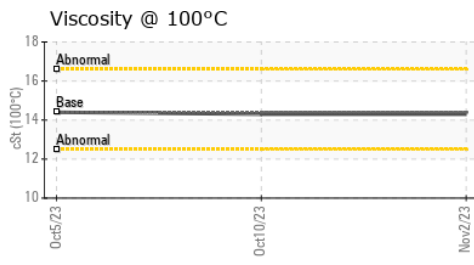
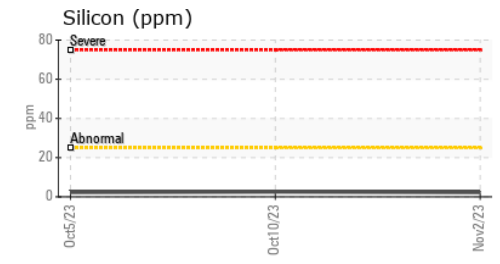
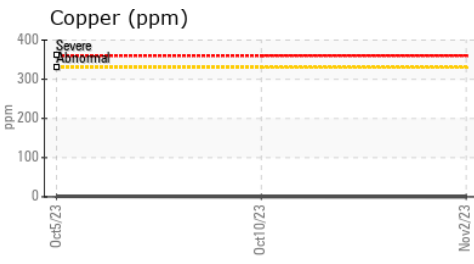
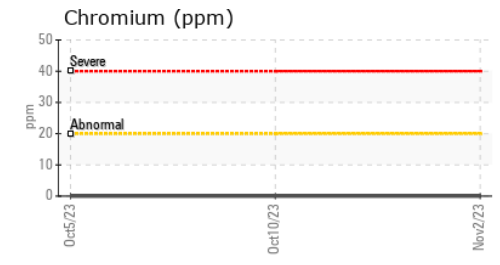
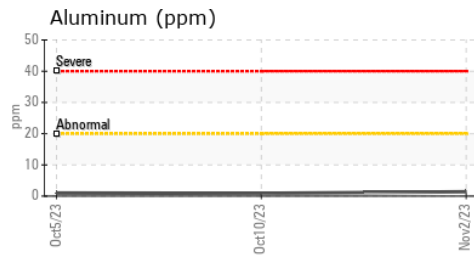
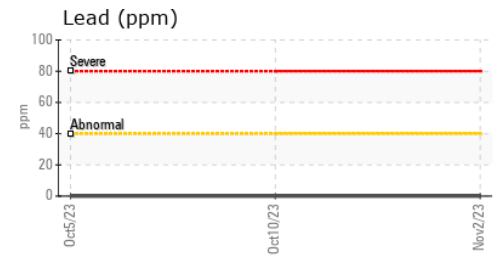
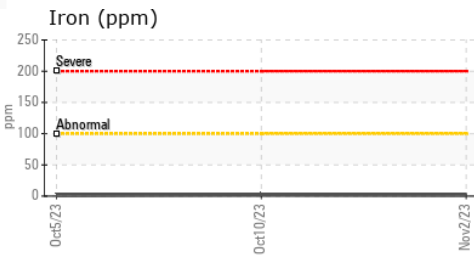
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.3</b>	14.3	14.4

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0868077 **Received** : 17 Nov 2023  
**Lab Number** : **06010657** **Diagnosed** : 19 Nov 2023  
**Unique Number** : 10749801 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**GO DURHAM - RAPT**  
 1903 FAYETTEVILLE ST  
 DURHAM, NC  
 US 27701  
 Contact: Robert Iosiniecki  
 Robert.iosiniecki@ratpdev.com

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)